

## **EXHIBIT 9**



2055 Niagara Falls Boulevard, Suite 3  
Niagara Falls, New York 14304  
Telephone: (716) 297-6150 Fax: (716) 297-2265  
[www.CRAworld.com](http://www.CRAworld.com)

September 13, 2013  
Gregory F. Linsin  
Blank Rome, LLP  
600 New Hampshire Avenue  
Washington, D.C. 20037

Dear Mr. Linsin:

Re: Ambient Air Quality Impact Assessment for Benzene Emissions from the Tonawanda Community Air Study; Tonawanda Coke Corporation, Tonawanda, New York

Conestoga-Rovers & Associates, Inc. (CRA) was asked to evaluate the impacts on the air quality of two specific events that occurred at the Tonawanda Coke Corporation (TCC) facility during the fall of 2008 and the spring of 2010. The data used for this analysis was collected by the New York State Department of Environmental Conservation (NYSDEC) during their Tonawanda Community Air Study, and was provided to TCC's environmental regulatory counsel in response to a Freedom of Information Law (FOIL) request. The government responded to the FOIL request in May 2013 and provided approximately 18 Gigabytes (GB) of data or the equivalent of approximately 1 million pages of text. This dataset consisted of raw field data, field notes, raw laboratory data, summary analytical results, meteorological data, dispersion modeling results, reports, memoranda, and correspondence. CRA has relied upon the data provided by TCC's counsel for its use in the analysis included in this letter, and did not endeavor to confirm the accuracy of the information provided.

#### Light Oil Recovery System Shutdown

On November 20, 2008, TCC shut down the light oil (LO) recovery process within the byproducts part of its plant. As a result of this action, the LO (which is comprised of benzene, toluene, and xylene) that had previously been recovered from the coke oven gas (COG), and sold as a product, was left in the COG that is used as fuel for the facility's boiler and battery operation.

CRA reviewed the ambient benzene and meteorological data collected by NYSDEC during the two week period immediately before and the two week period after the discontinuance of the LO recovery system on November 20, 2008 to determine if the shutdown of the LO system had any discernible impact on the ambient benzene concentrations. The NYSDEC data show that the ambient benzene concentrations at the Grand Island Boulevard (GIB1) monitoring station dropped by a factor of two for the period immediately following the shutdown of the LO

---

Equal  
Employment Opportunity  
Employer

---

REGISTERED COMPANY FOR  
**ISO 9001**  
ENGINEERING DESIGN



**CONESTOGA-ROVERS  
& ASSOCIATES**

September 13, 2013

Reference No. 059849

- 2 -

operation, but also reflect that there was an increase in the average wind speed data for the same time period.

In order to further understand the effect of the change in wind speed on the ambient benzene concentrations, CRA completed an evaluation of the average wind speed during the period from November 2, 2008 to December 3, 2008, when blowing from TCC to the GIBI monitoring station (i.e. between 231° - 253°; or 242° +/-11°). The average wind speeds for this period are presented in Table 1 below along with the corresponding 15-minute average for benzene during that same time period.

**Table 1. Summary of Benzene Data Surrounding Light Oil Operation Shutdown**

| Period              |                    | 15-minute average<br>Benzene<br>(ppb) | Average Wind Speed<br>(mph) |
|---------------------|--------------------|---------------------------------------|-----------------------------|
| 11/02/08 - 11/19/08 | Before LO shutdown | 0.31                                  | 4.8                         |
| 11/20/08 - 12/03/08 | After LO shutdown  | 0.15                                  | 9.4                         |

Table 1 shows the concentration measurements of benzene taken during the 2 weeks before the shutdown of the LO operations averaged 0.31 parts per billion (ppb), during which the average wind speed was 4.8 miles per hour (mph). This compares to concentration measurements taken 2 weeks after the shutdown of the LO operations, which averaged 0.15 ppb with a corresponding average wind speed of 9.4 mph. The ratio of average wind speeds before and after the shutdown date can be calculated by dividing them (after/before =  $9.4/4.8 = 1.96$ ). The concentration of a contaminant at a downwind receptor is directly proportional to the dilution of the emissions, and the dilution is directly proportional to the wind speed and turbulence; thereby having a corresponding effect on the overall concentration of ambient benzene. The effects of the meteorology on the ambient benzene concentrations after the LO shutdown can be estimated by dividing the concentration before the LO shutdown by 1.96, for example:  $0.31/1.96 = 0.16$  ppb. This agrees with the observed benzene concentration of 0.15 ppb after the LO operations were shutdown.

#### Pressure Relief Valve Shutdown

A similar analysis was performed for the two month period before and the two month period following the capping of the COG pressure relief valve (PRV) on March 15, 2010. The analyses



**CONESTOGA-ROVERS  
& ASSOCIATES**

September 13, 2013

Reference No. 059849

- 3 -

for this period was carried out for a longer period because 15-minute average benzene concentration data was not available and we relied on the 24-hour average canister data collected on a one in six day schedule.

The average wind speed for the period from January 14, 2010 to May 14, 2010, when blowing from TCC to GIBI (i.e. between 231° - 253°; or 242° +/-11°), is shown in Table 2 along with the corresponding 24-hour average for benzene during that same time period.

**Table 2. Summary of Benzene Data Surrounding PRV Removal from Service**

| Period            |                     | 24-hr average<br>Benzene<br>(ppb) | Average Wind Speed<br>(mph) |
|-------------------|---------------------|-----------------------------------|-----------------------------|
| 1/14/10 - 3/15/10 | Before PRV shutdown | 0.78                              | 7.0                         |
| 3/16/10 - 5/14/10 | After PRV shutdown  | 0.69                              | 7.5                         |

In this case, the average wind speed ratio (after/before) is  $7.5/7.0 = 1.07$ . The average benzene concentration for samples collected after the PRV shutdown would be predicted by dividing the average benzene concentration for the period before the PRV was shut down by the wind speed ratio =  $0.78 \text{ ppb} / 1.07 = 0.73 \text{ ppb}$ . The predicted benzene concentration of 0.73 ppb roughly approximates the observed benzene concentration of 0.69 ppb after the PRV shutdown.

### Conclusion

Based on CRA's assessment of NYSDEC's data, it is reasonable to conclude that the shutdown of the LO recovery system and capping of the PRV did not have any discernible impact on the benzene concentrations observed downwind of the facility. However, it should be noted that these conclusions are complicated by the fact that CRA cannot account for potential actions by other contributing sources (i.e. other nearby production facilities) which may have led to decreased emissions from their processes.



**CONESTOGA-ROVERS  
& ASSOCIATES**

September 13, 2013

Reference No. 059849

- 4 -

If you have any questions or if clarification is required, please do not hesitate to contact me at 716-297-6150.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Thomas W. Ferrara  
Project Manager